Signature
CASSETTE PRINTER

PRIMERA
TECHNOLOGY, INC.

Service Manual for Signature Cassette Printer

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PRIMERA

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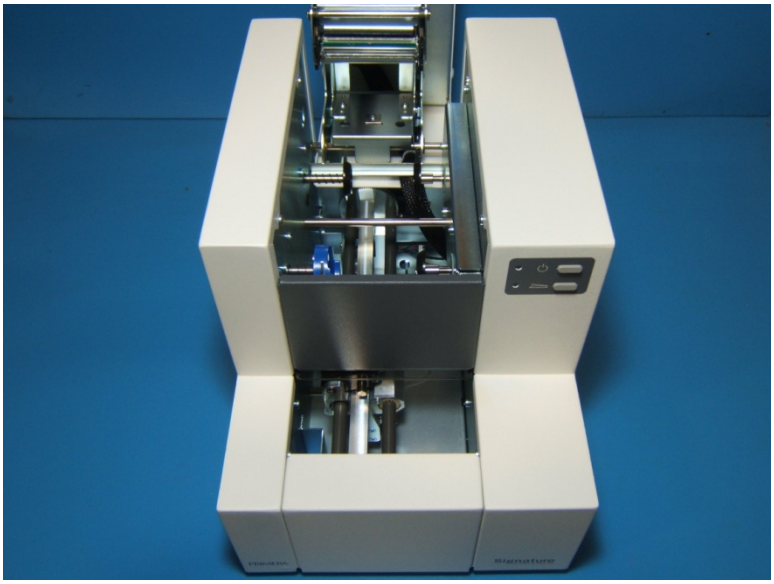
1 ▪ Removing Rear and Side Covers

1.1

Open lid. Loosen 3 screws from the side or both sides that are being removed.

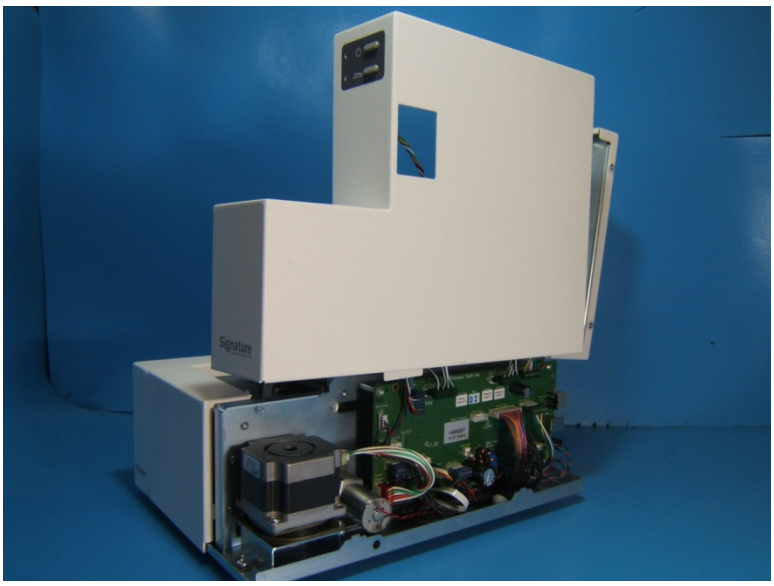


1.2

Remove rear panel. Loosen screw from side or both sides being removed.

1.3

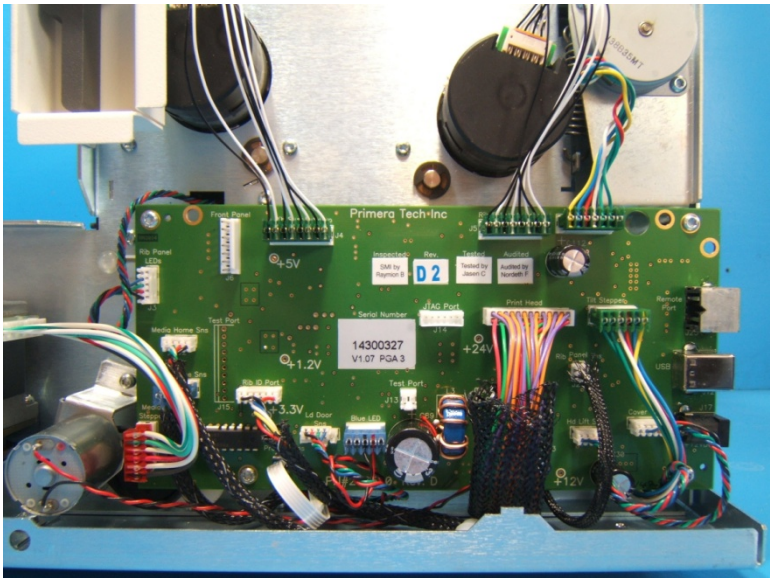
Lift up side cover or both covers to remove. When removing right cover, disconnect control panel cable from main board.



2 ▪ Replacing Main Board

2.1

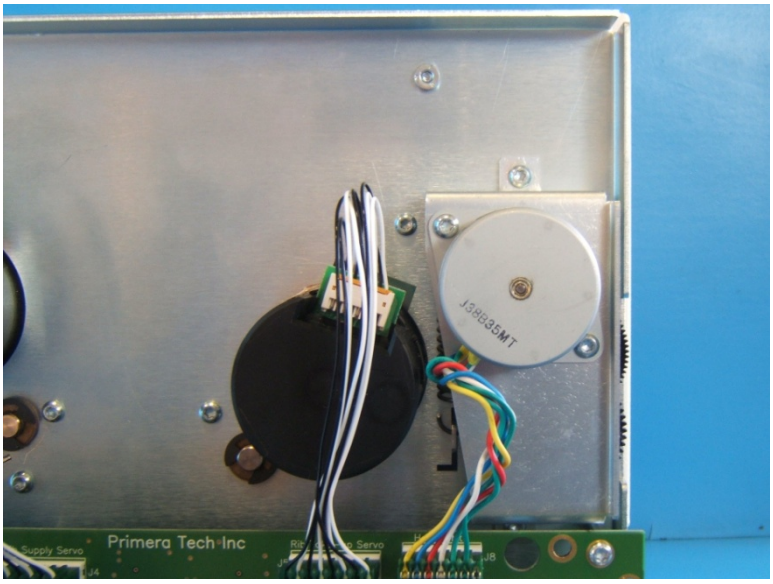
Remove right side cover. Disconnect all cables. Remove 4 screws securing board. Replace board and reconnect all cables.



3 ▪ Replacing Headlift Motor

3.1

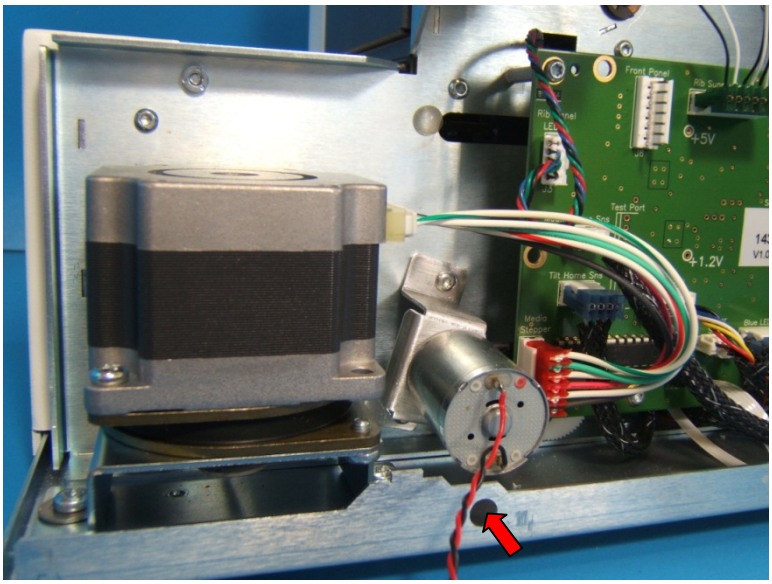
Remove right side cover. Remove 2 screws securing motor. Replace motor.



4 ▪ Replacing Input Door Motor

4.1

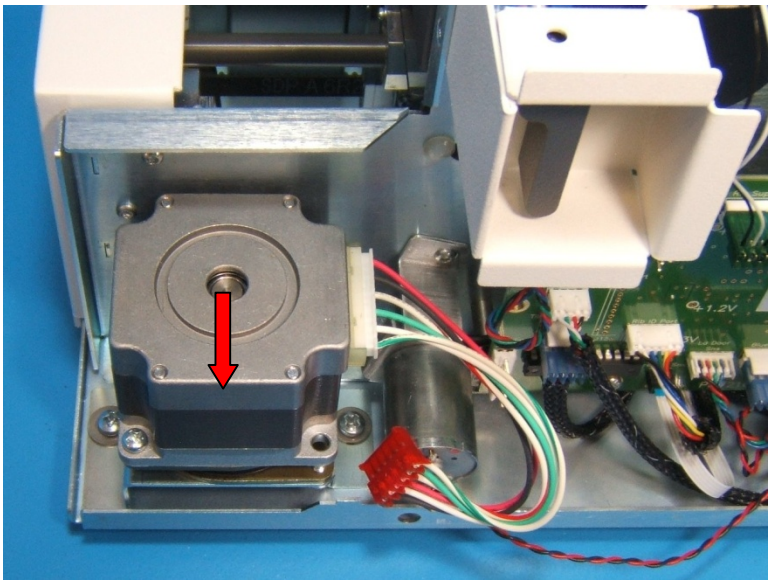
Remove right side cover. Remove 2 screws securing motor (use hole in base-plate to access bottom screw). Loop o-ring around pulley on new motor and secure.



5 ▪ Replacing Carriage Drive Motor

5.1

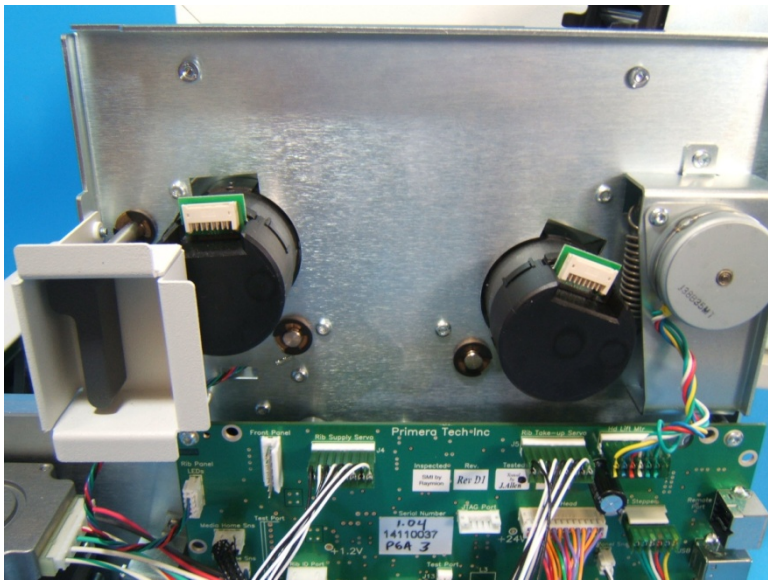
Remove right side cover. Remove 2 screws securing motor. Loop belt around pulley and pull out on new motor to remove slack while tightening screws.



6 ▪ Replacing Ribbon Drive Motors

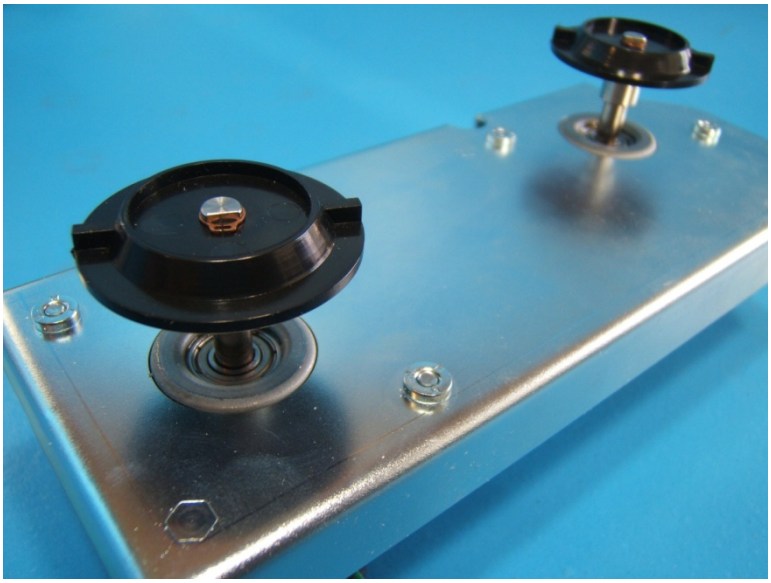
6.1

Remove right side cover. Unplug both cables. Remove 4 screws securing ribbon drive bracket. Open lid and lift bracket and motors out of unit.



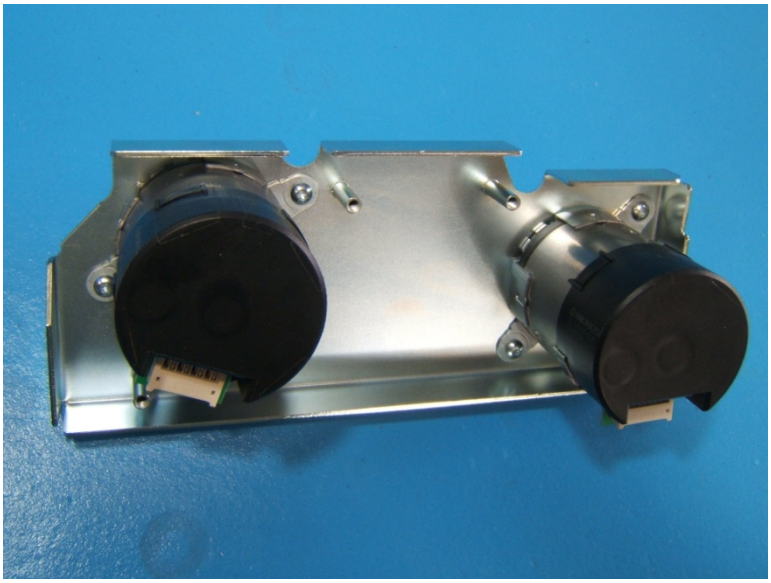
6.2

Remove retaining rings securing ribbon hubs from motor(s) to be replaced.



6.3

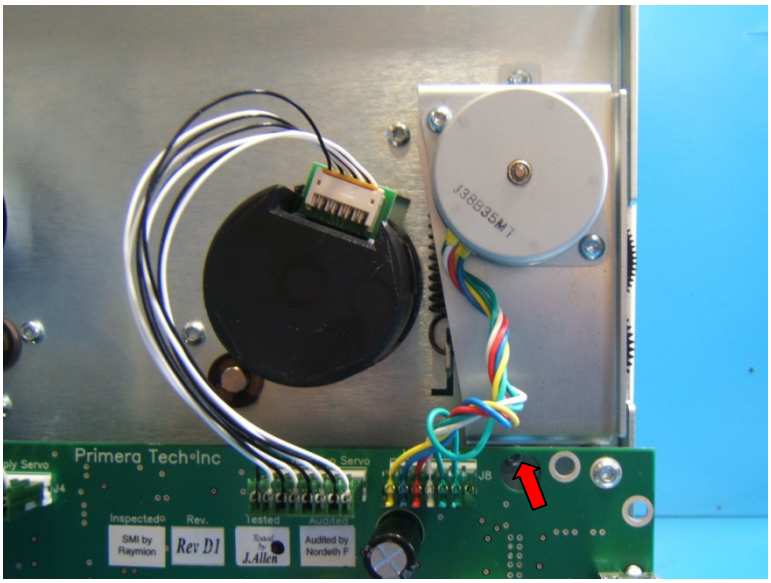
Remove screws and replace motor(s). Re-secure ribbon hubs with retaining rings. Replace bracket into unit and connect cables.



7 ▪ Replacing Headlift & Ribbon Idler Gears

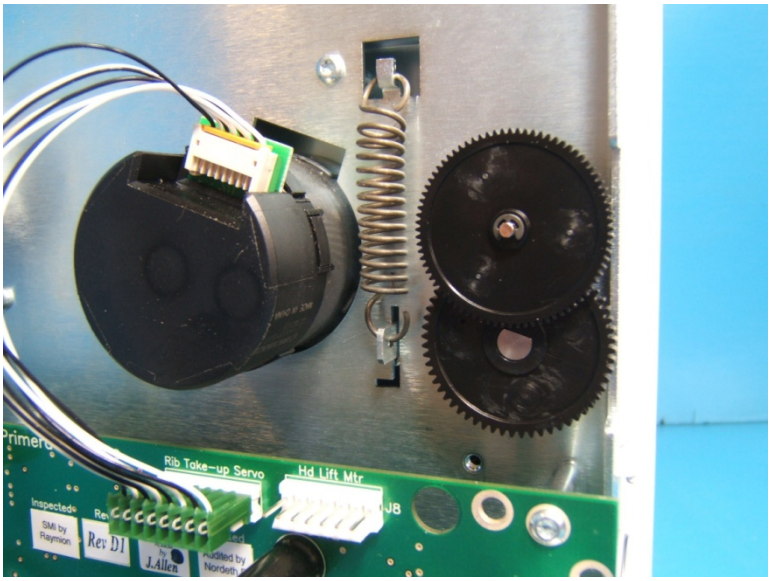
7.1

Remove right side cover. Remove two screws securing headlift motor bracket (use hole in main board to access bottom screw).



7.2

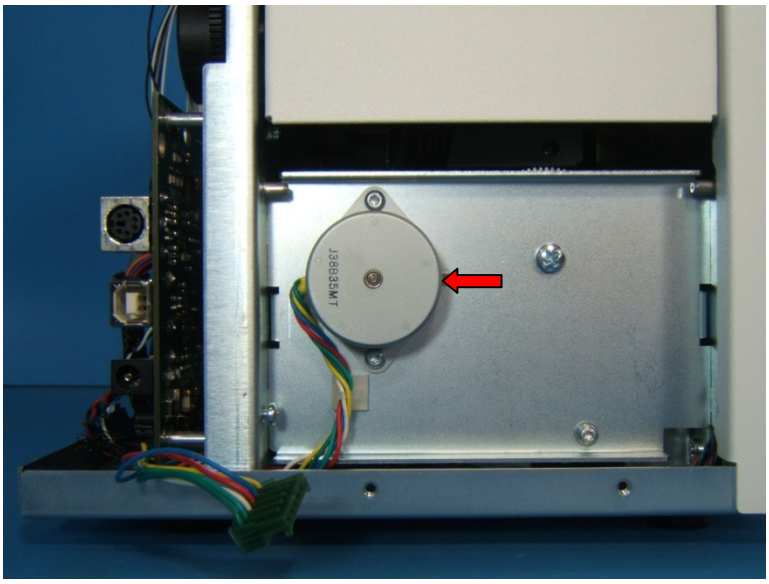
Remove small retaining ring. Remove and replace one or both damaged gears. Replace retaining ring. Reattach motor bracket. Be sure teeth on motor gear line up evenly with plastic gear. Rotate with thumb to verify gears turn smoothly.



8 ▪ Replacing Carriage Rotation Motor

8.1

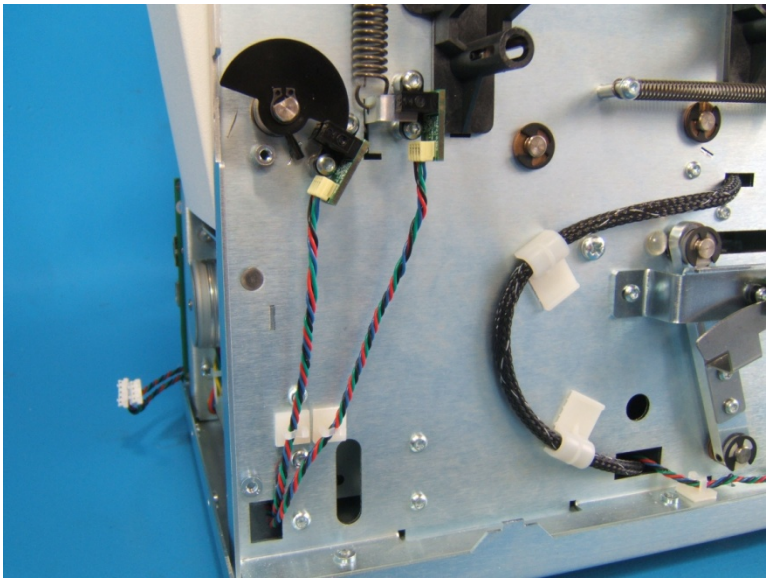
Remove right side cover and rear panel. Remove 2 screws securing motor. Unplug motor from main board and route cable through side plate. When attaching new motor, press to the left while tightening screws to ensure gears do not bind.



9 ▪ Replacing Headlift and Lid Sensors

9.1

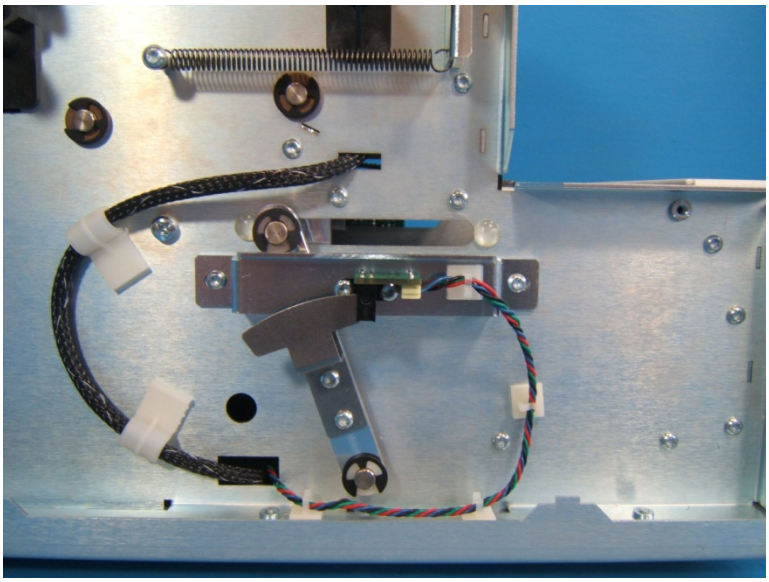
Remove both side covers and rear panel. Remove 2 screws securing sensor that needs to be replaced. For headlift sensor, rotate flag counterclockwise to gain access to top screw. For lid sensor, pop open lid to gain access to bottom screw. Route new sensor cable though both side plates and connect to main board.



10 ▪ Replacing Input Door Sensor

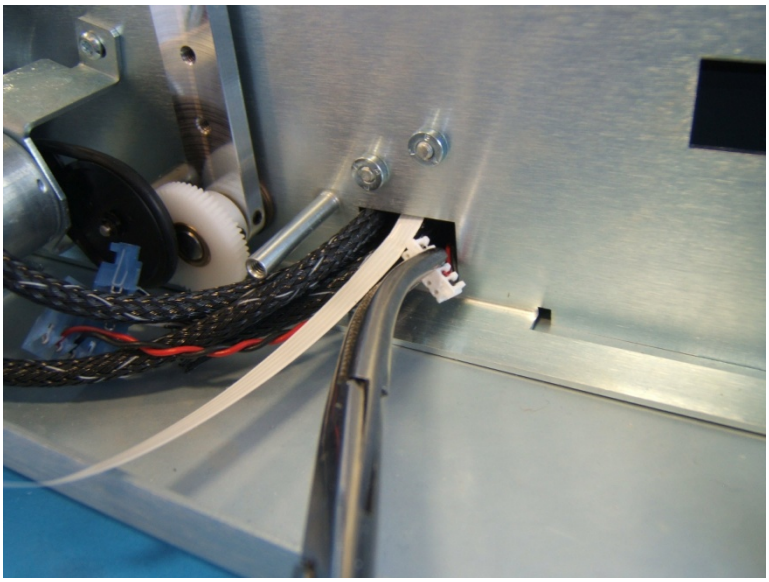
10.1

Remove both side covers and main board. Remove 2 screws securing sensor and pull cable out of wire saddles and through unit.



10.2

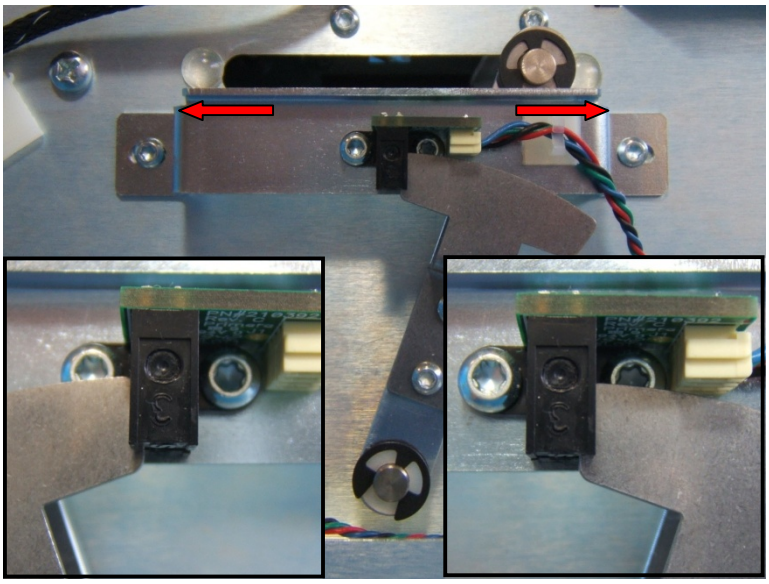
Secure new sensor and route through wire saddles. Feed end of cable through left side plate and use a needle-nose to reach into right side plate and pull cable though.



11 ▪ Adjusting Input Door Sensor Bracket

11.1

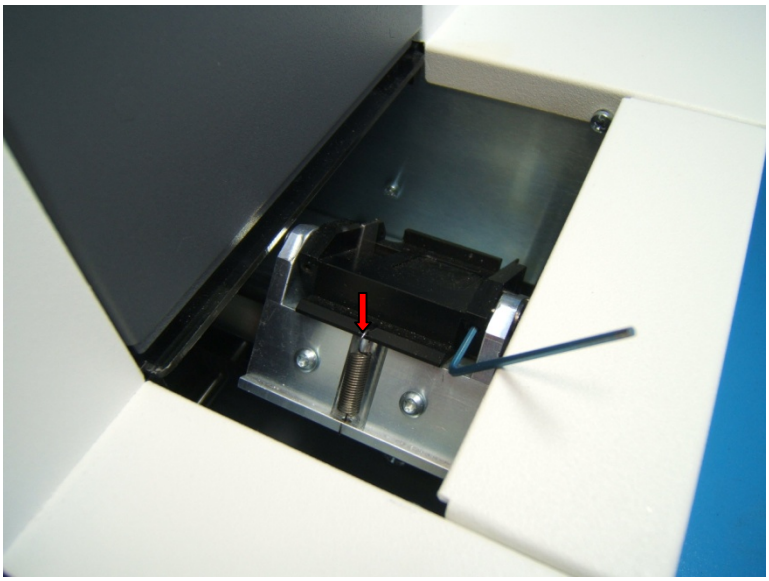
Remove left side cover. Sensor should be centered in arc of flag. Loosen screws on bracket. Slide bracket to left or right until flag is even in sensor in both right and left positions (insert pictures) then tighten screws.



12 ▪ Replacing Cassette Sensor

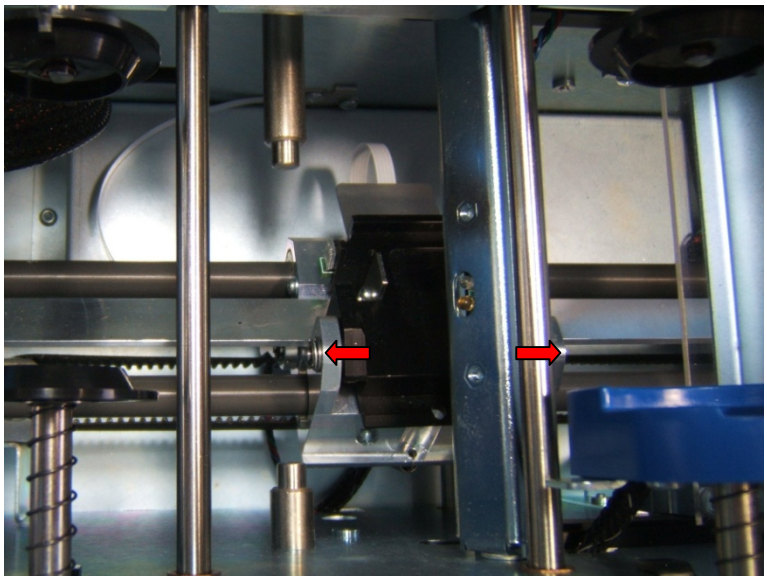
12.1

Slide cassette pivot block assembly fully forward and rotate clockwise. Use needle-nose to unhook spring from block. Use allen wrench to loosen both set screws a few rotations.



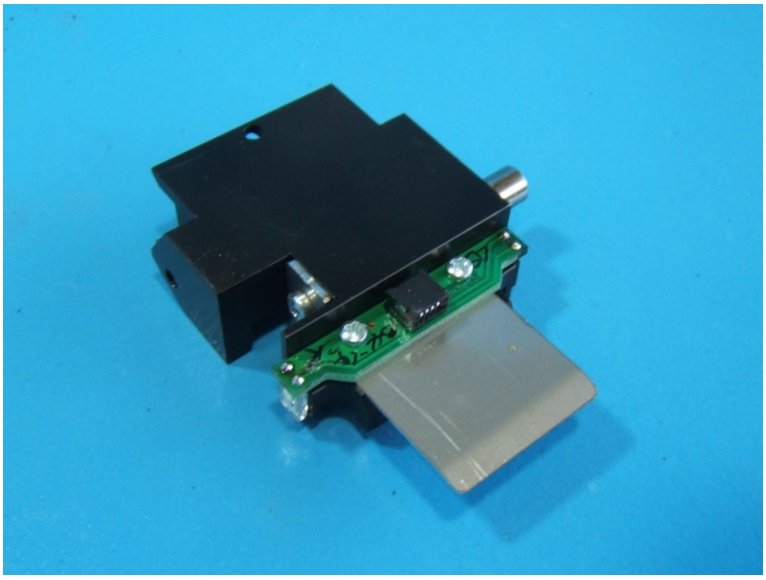
12.2

Open lid and slide cassette pivot block assembly to center of unit. Pull pins and bearings out of both sides. Unplug ribbon cable from sensor and lift block out of unit.



12.3

Remove 2 screws securing cassette sensor. Replace sensor.

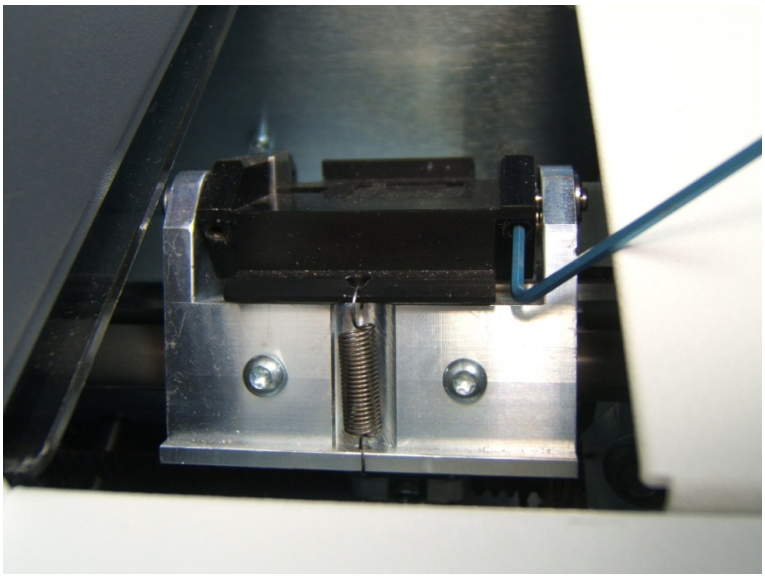


12.4

Be sure pins have 0.01 washers between retaining rings and bearings (add them if the unit did not previously have them).

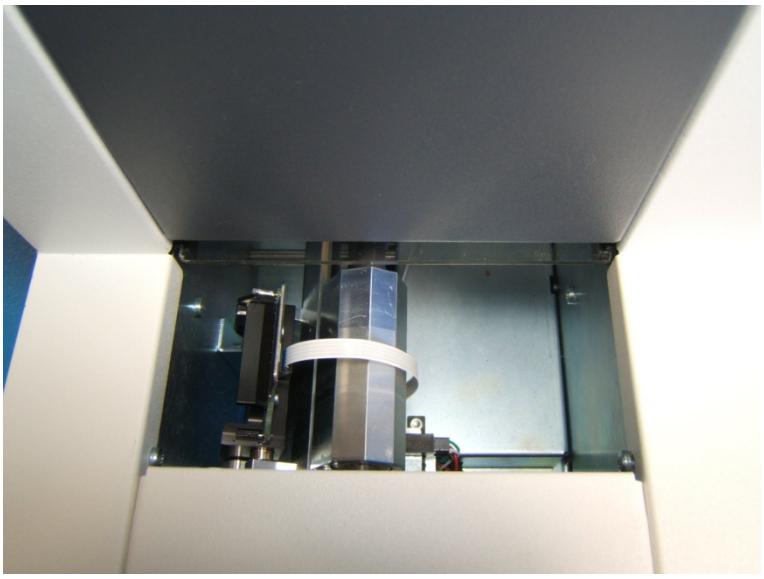
12.5

Set block back onto assembly and replace bearings and pins. Slide assembly fully forward again and retighten set screws. Reattach spring to block.



12.6

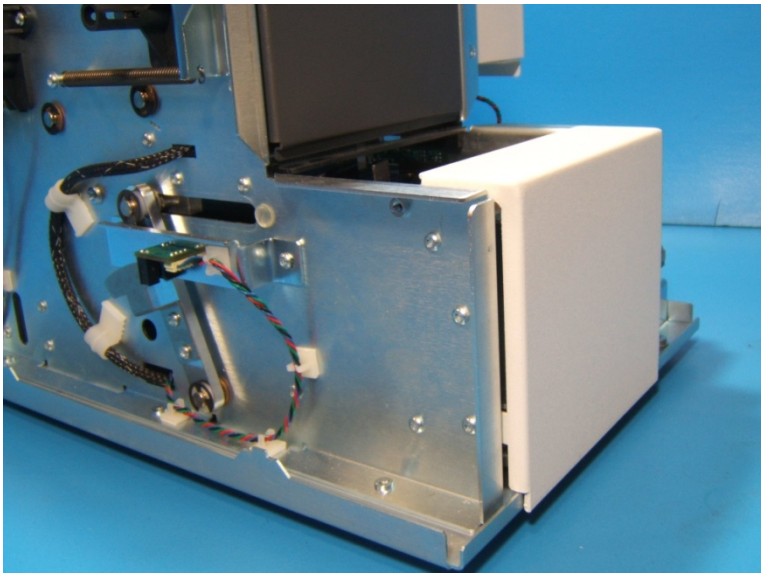
Rotate cassette pivot block assembly counterclockwise and reattach ribbon cable.



13 ▪ Replacing Cassette Load Sensor

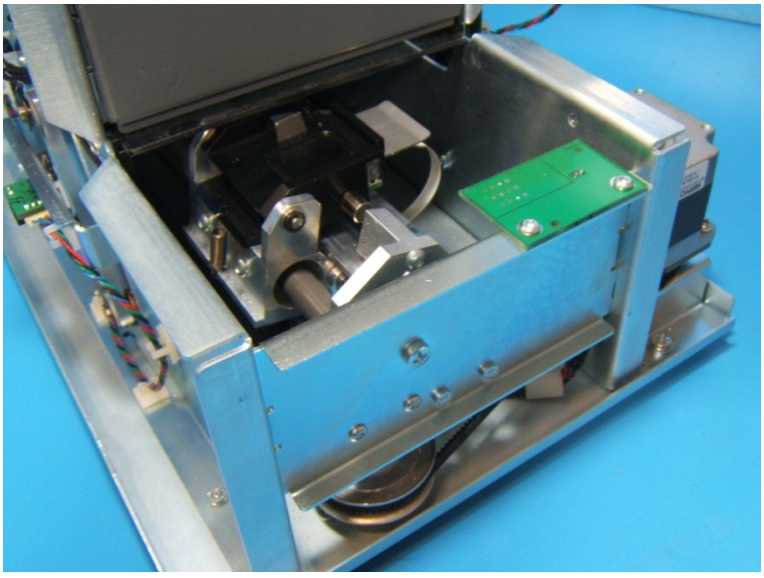
13.1

Remove both side covers. Remove 4 screws securing front cover. Remove front cover.



13.2

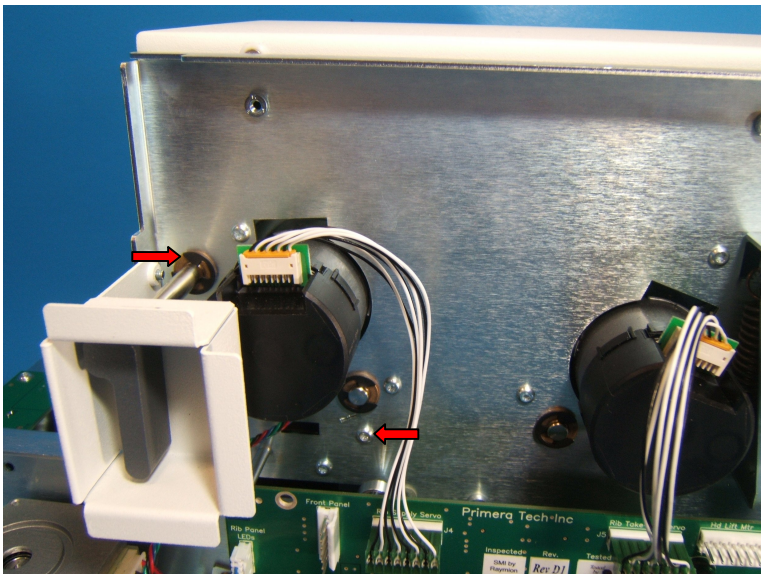
Remove 2 screws securing cassette load sensor and unplug cable. Replace sensor and front cover.



14 ▪ Replacing Ribbon Sensor

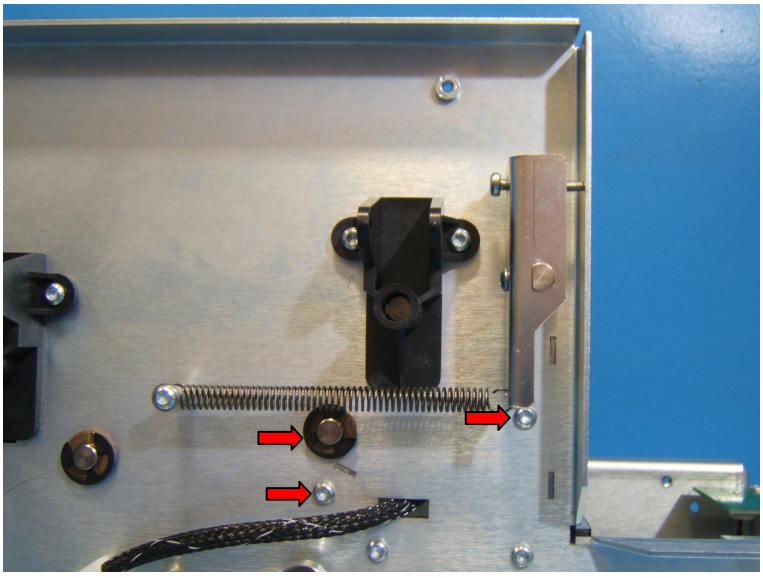
14.1

Remove both side covers. Remove screw and retaining ring indicated. Unplug ribbon sensor cable from main board.



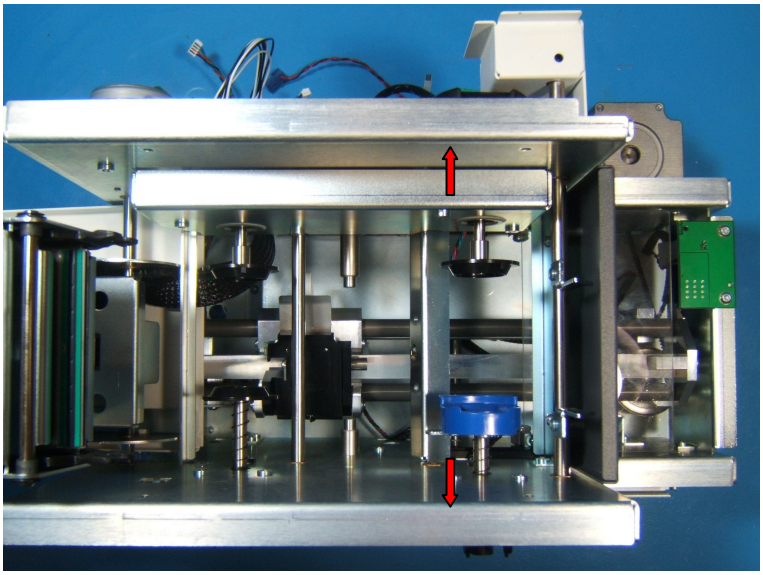
14.2

Remove screws and retaining ring indicated.



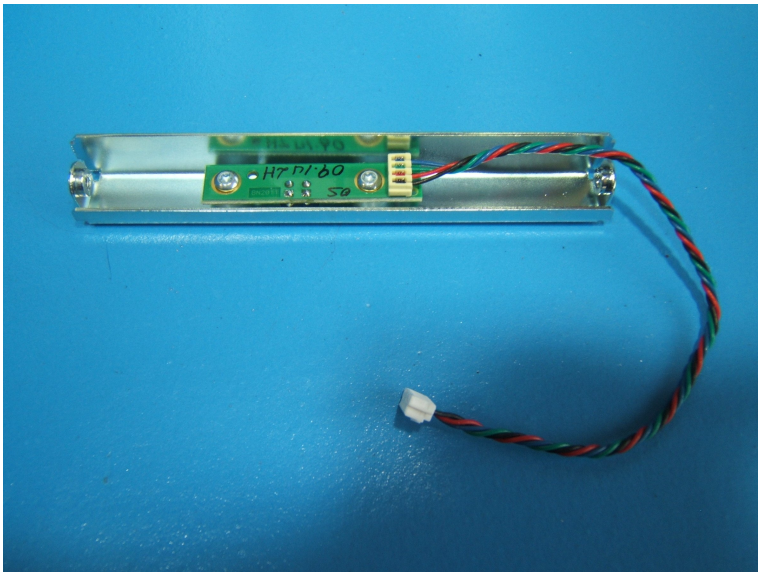
14.3

Slightly pull side panels apart and lift ribbon sensor bracket out of unit.



14.4

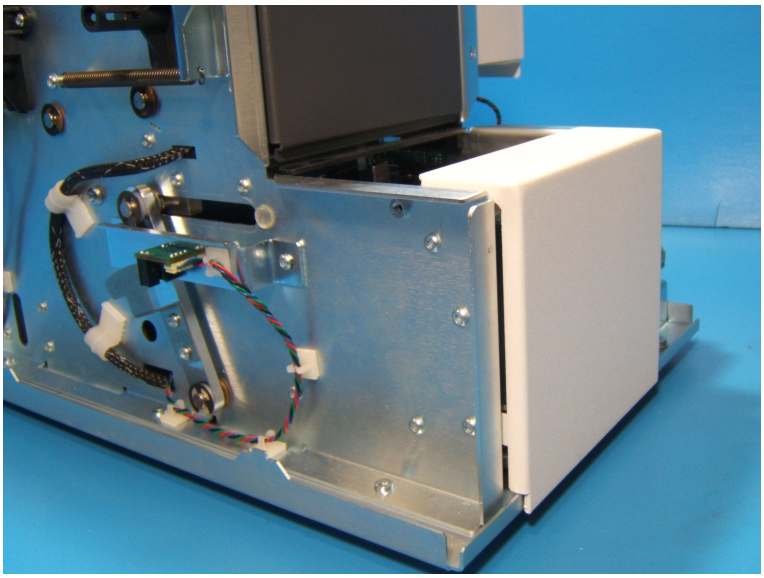
Replace sensor. Route cable through right side plate and place bracket back into unit, being sure tabs fit into slots. Replace all screws and retaining rings.



15 ▪ Accessing Internal Sensors & Ribbon Cable

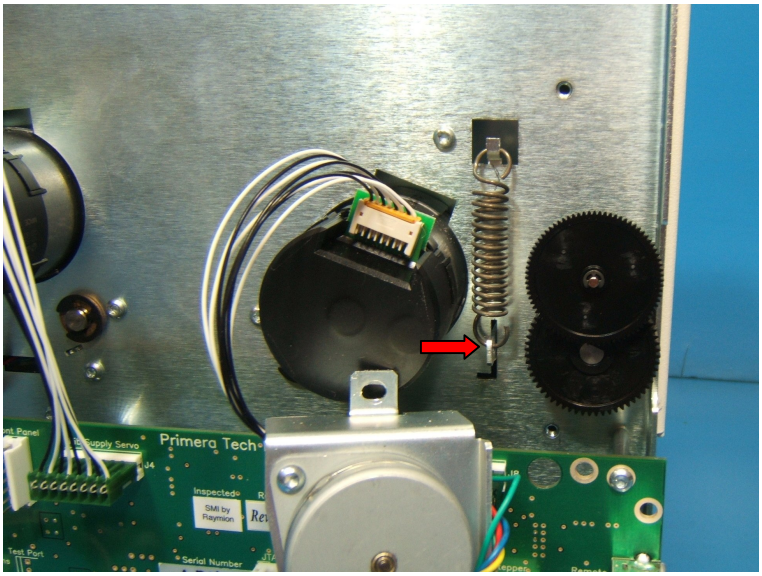
15.1

To replace carriage rotation sensor, carriage home sensor or ribbon cable, the left side plate needs to be removed. Remove both side covers. Remove front cover.



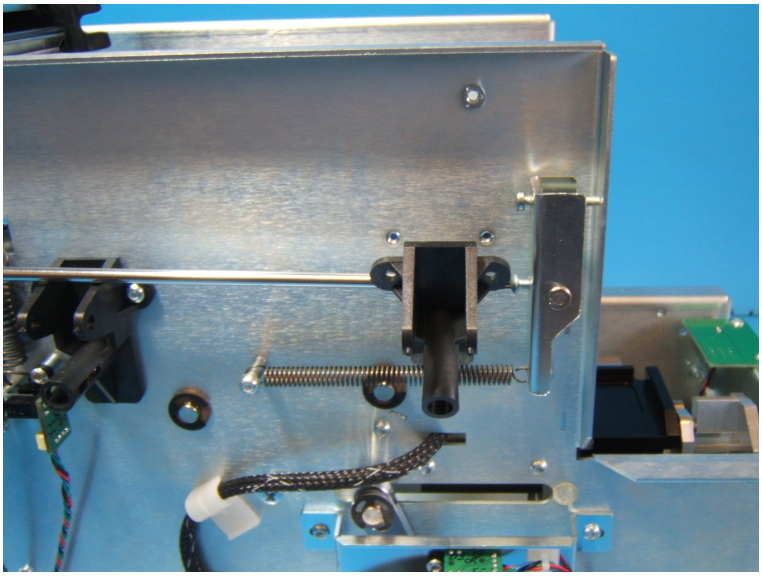
15.2

Remove headlift motor bracket from right side plate. Unhook spring from lid lift bracket.



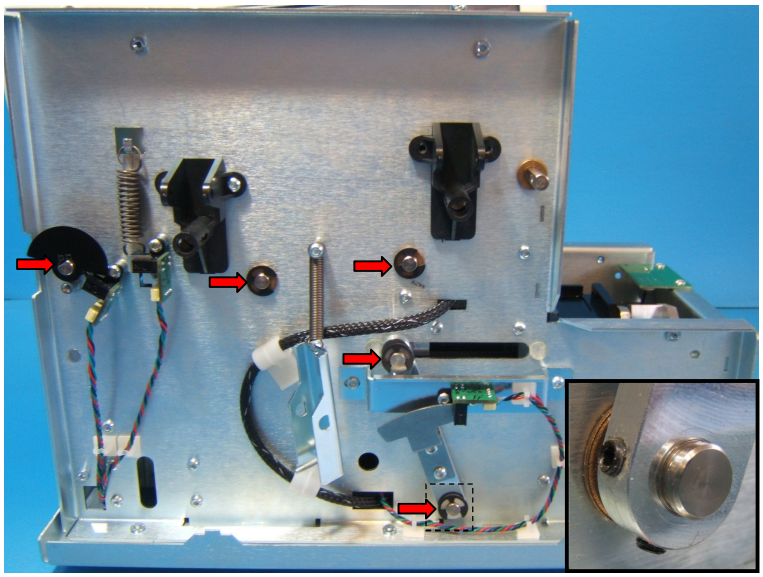
15.3

Open lid. Remove 2 screws from right shaft mount and tilt it forward. Use screwdriver behind mount to remove screw from lid release bracket. Remove bracket and curved washer.



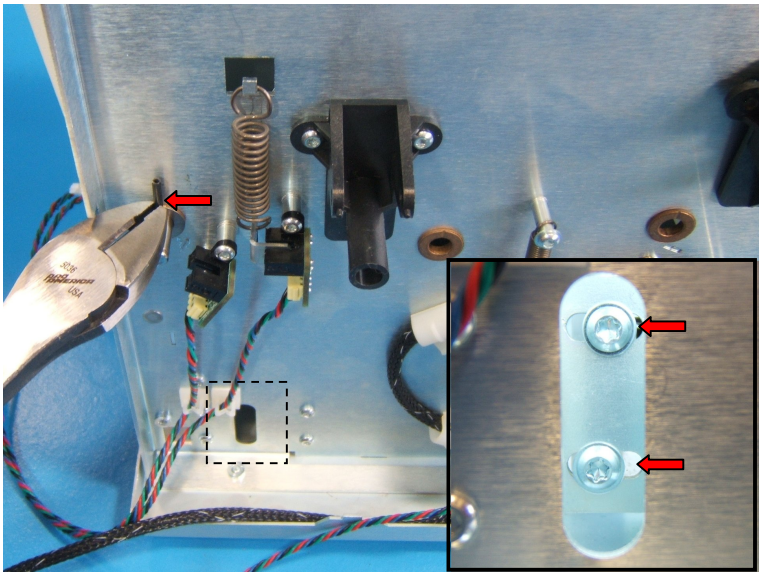
15.4

Remove 5 retaining rings indicated (keep track of all washers). Pull sensor flag off of headlift shaft. Loosen both set screws (insert picture). Bottom set screw can be accessed through small hole in base plate.



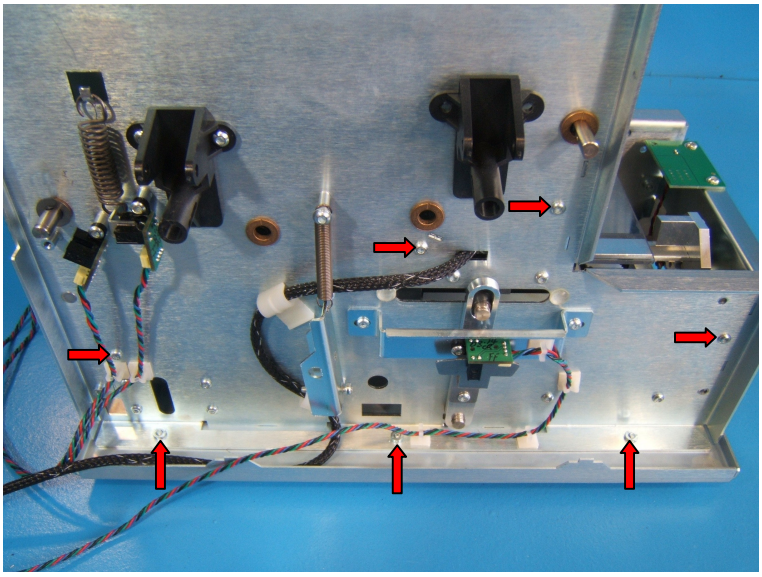
15.5

Use pliers to pry pin out of headlift shaft (keep track of washer). Access through slot in side plate and remove 2 screws securing belt tension block (keep track of washers).



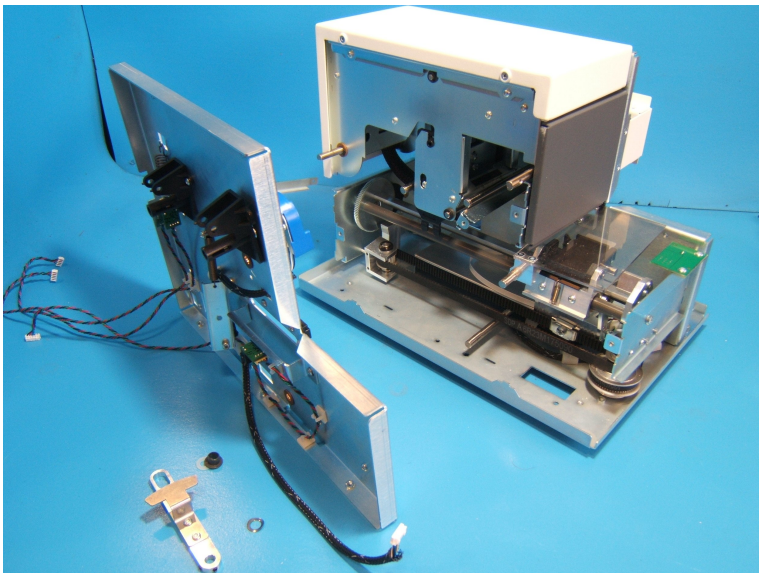
15.6

Remove 7 screws indicated. Tip unit up to access 3 screws from bottom of base plate.



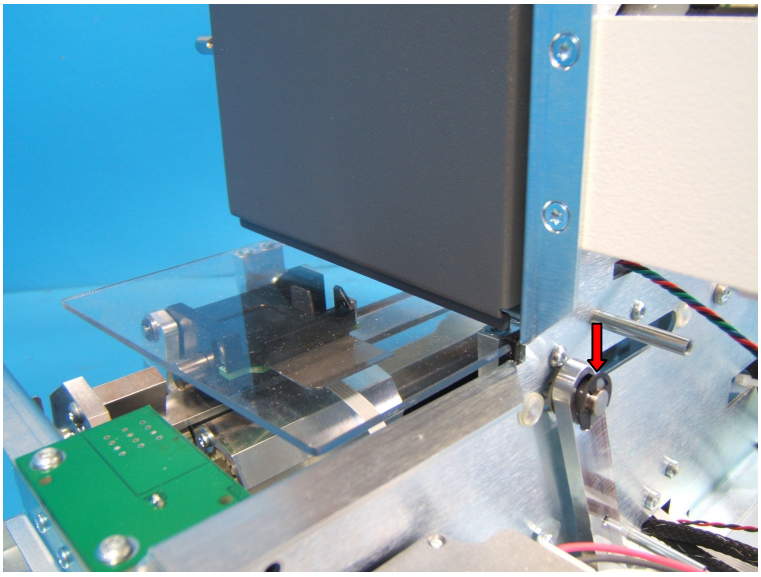
15.7

Pull left side plate from unit. Keep track of bushing and washers as left link comes off.



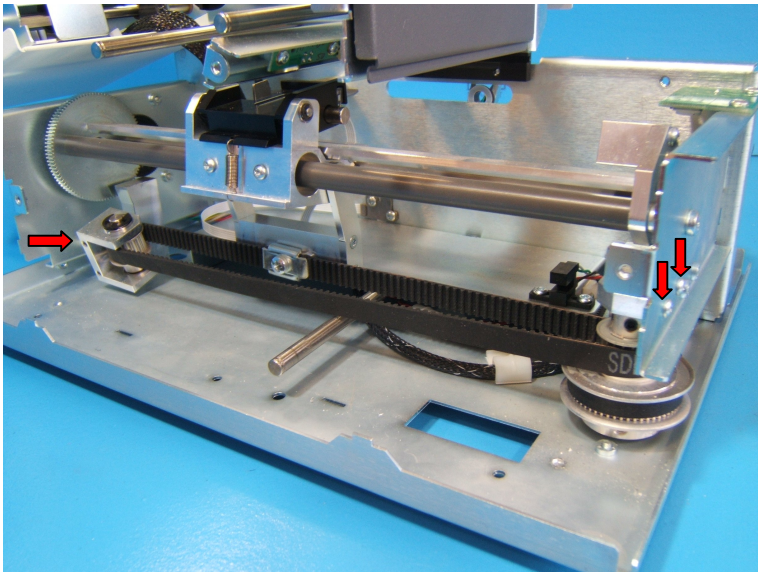
15.8

Remove retaining ring indicated. Remove input cover from unit (keep track of white washer between bushing and side plate, as it may fall out).



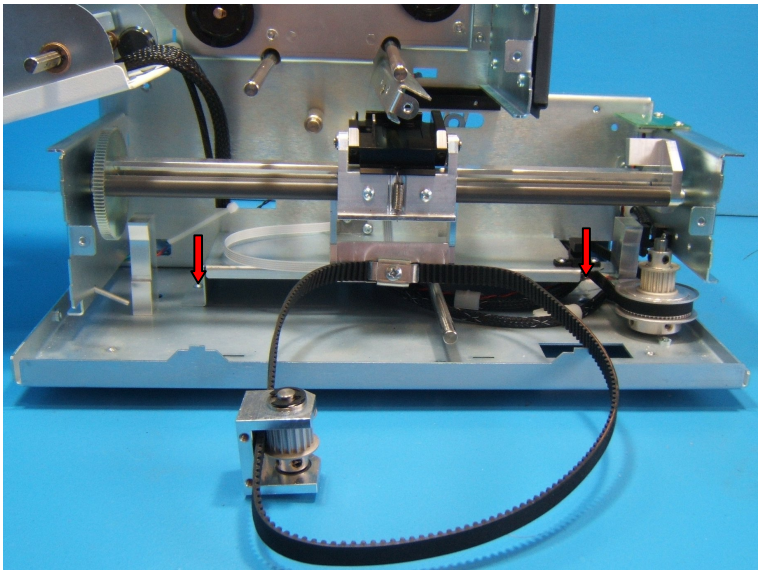
15.9

Remove long screw securing belt tension block and 2 screws securing bearing mount block. Remove bearing mount block from pulley shaft.



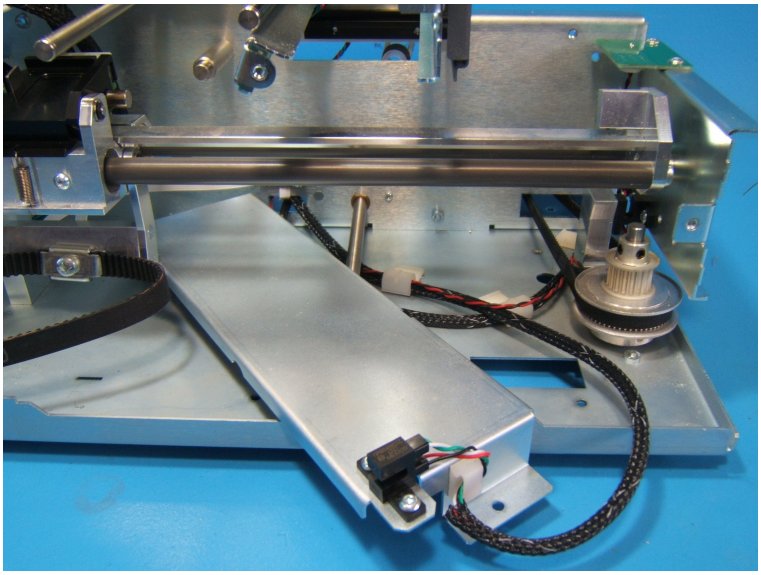
15.10

Lift belt up off of pulley. Remove 2 screws securing wire plenum bracket to base plate (note that both screws are slightly shorter than others used in unit and must be reused in same location).



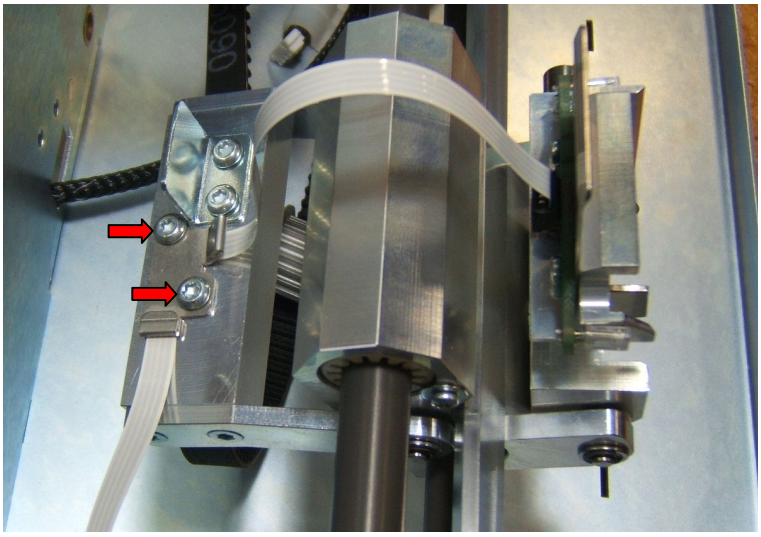
15.11 – Carriage Home Sensor

Remove both screws securing carriage home sensor to bracket. Replace sensor and route through wire saddles (be sure wire goes under shaft).



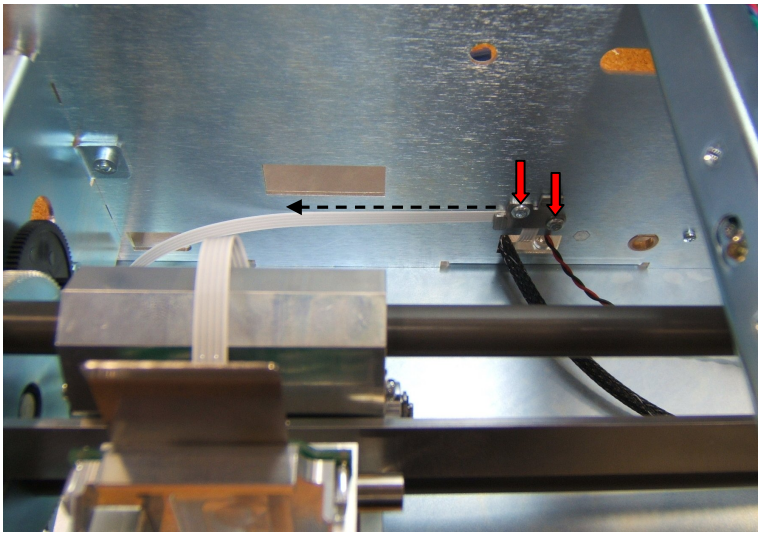
15.12 – Ribbon Cable

Unplug ribbon cable from cassette sensor. Remove 2 screws securing capture bracket (tilt drive belt attachment up to access screws).



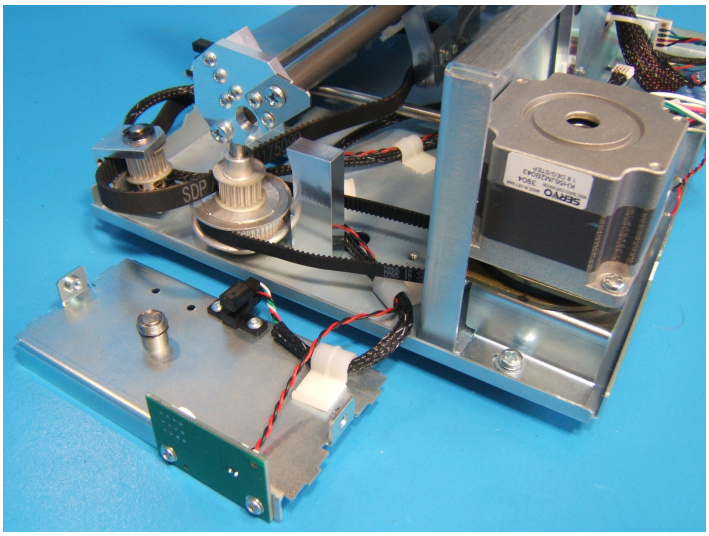
15.13 – Ribbon Cable

Remove 2 screws securing capture bracket. Replace ribbon cable and secure in both capture brackets (be sure ribbon cable is level when tightening screws). After replacing wire plenum bracket verify ribbon cable is level and does not snag on bracket.



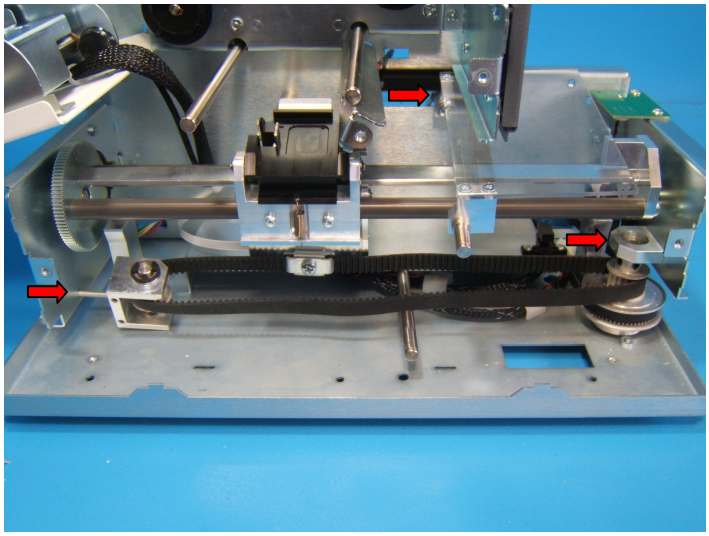
15.14 – Carriage Rotation Sensor

Remove screw securing input brace bracket to right side plate (keep track of bearing and washers on pin). Remove both screws securing carriage rotation sensor to bracket. Replace sensor and route through wire saddles (be sure wire goes under shaft). Reattach bracket (be sure bearing on pin goes into hole on carriage).



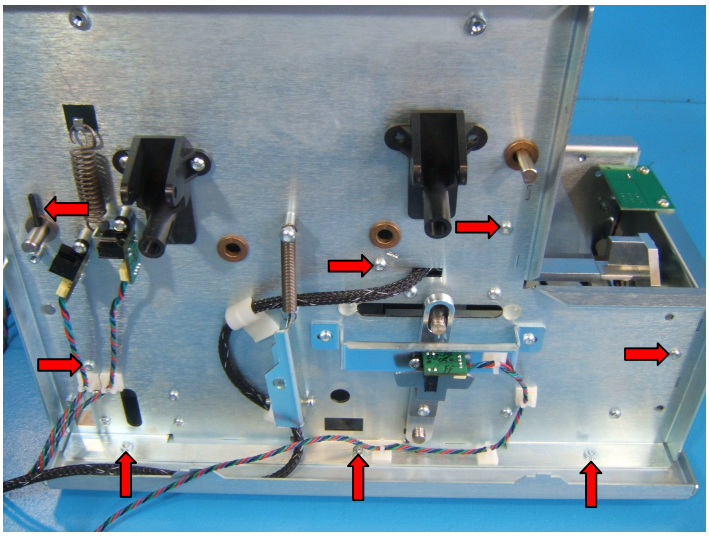
15.15

Reattach wire plenum bracket (be sure to use 2 shorter screws). Loop belt around pulley. Secure bearing mount block. Secure belt tension block (just start long screw, do not tighten). Place right pin of input cover into right link (make sure white washer is behind bushing).



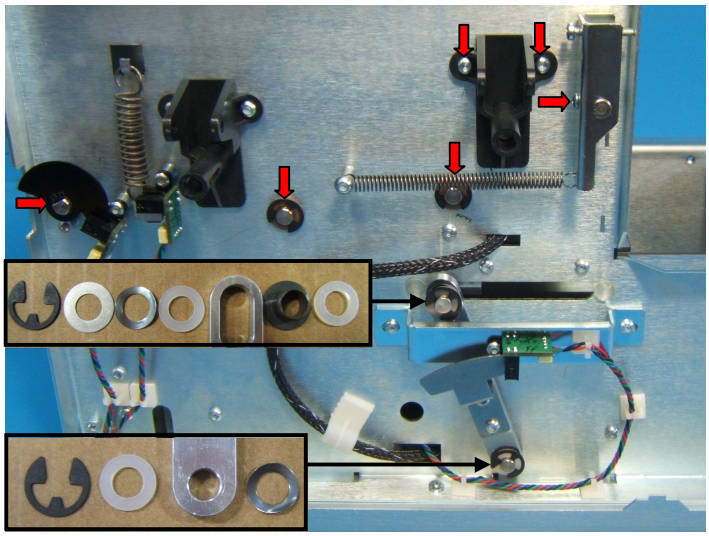
15.16

Replace left side plate (be sure all shafts goes through bearings and lid lift bracket goes through slot on right side plate). Secure all 7 screws. Use channel lock pliers to press pin back into hole on lid shaft, so one end of pin is flush with flat edge of shaft (be sure to place thin washer onto shaft first).



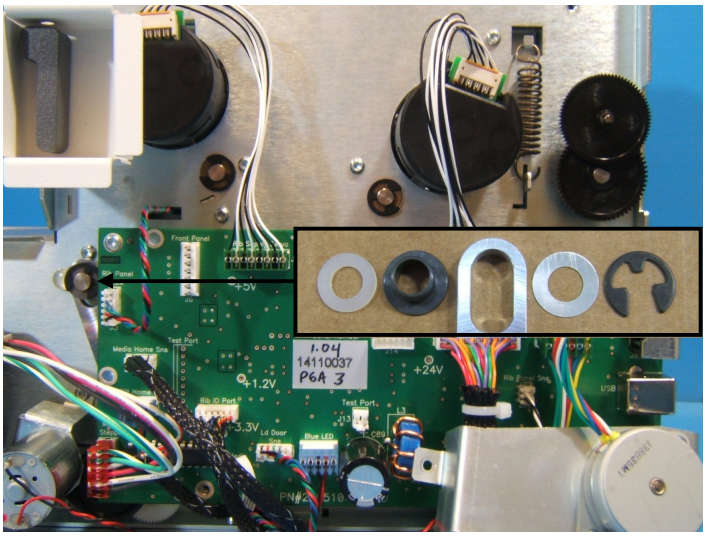
15.17

Attach sensor flag and secure with retaining ring. Secure lid release bracket then secure screws in right shaft mount. Route 4 cables back through unit. Replace 2 retaining rings on both ribbon idler shafts. Replace left link (arrange link, bushing and washers in order shown in insert pictures) and secure with retaining rings. If necessary, sensor input door bracket can be removed to get link back on (Refer to section 11, page 14 when replacing).



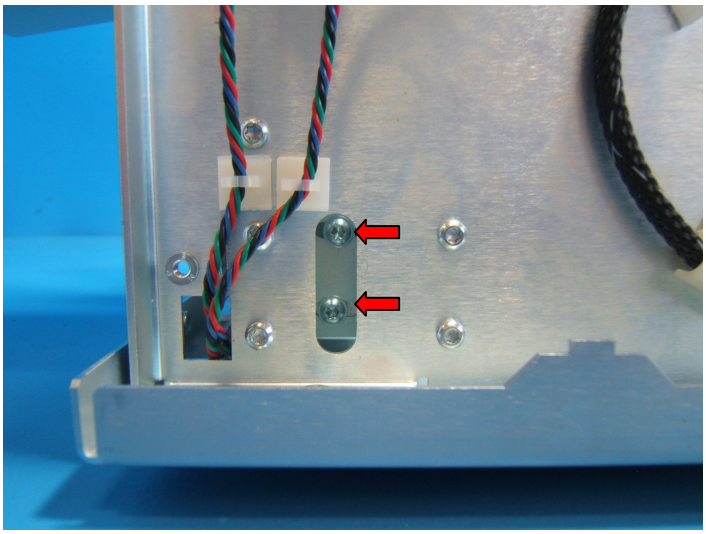
15.18

Arrange link, bushing and washers in order shown in insert picture and secure with retaining ring. Hook spring to end of lid lift bracket. Replace headlift stepper bracket.



15.19

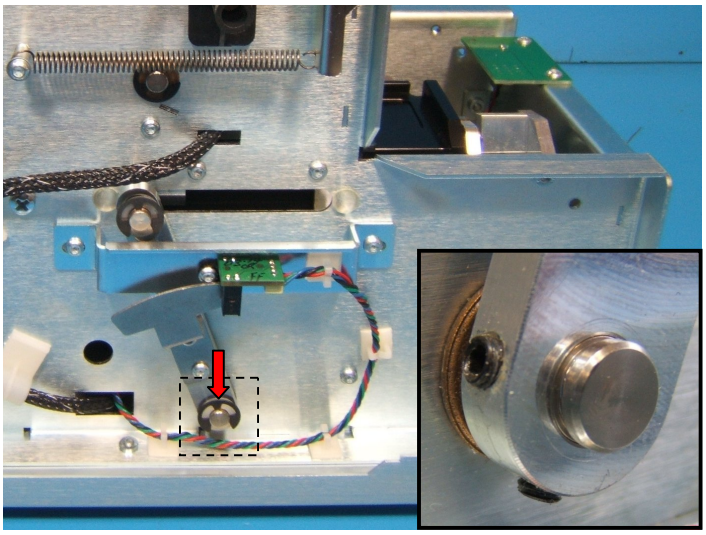
Tighten long screw connected to belt tension block until carriage belt has appropriate tension. Replace 2 screws and washers to secure block in place.



16 ▪ Tightening Loose Idler Post

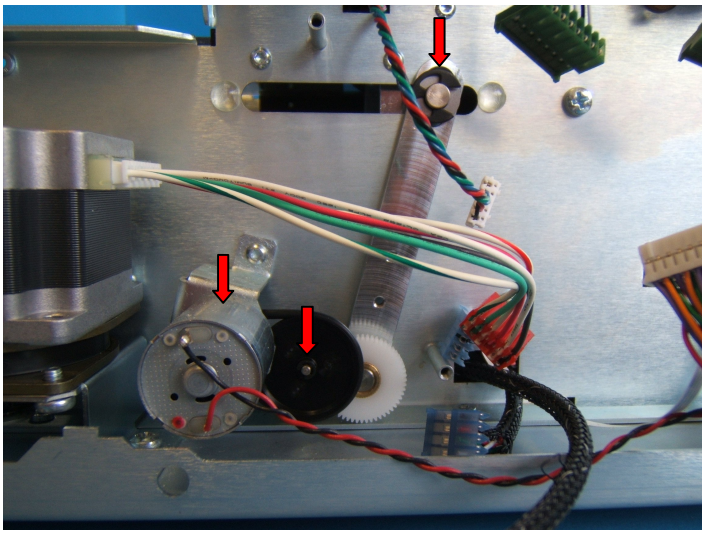
16.1

Remove both side covers. Remove bottom retaining ring on left link (keep track of washers). Loosen both set screws (bottom screw can be accessed through small hole in base plate).



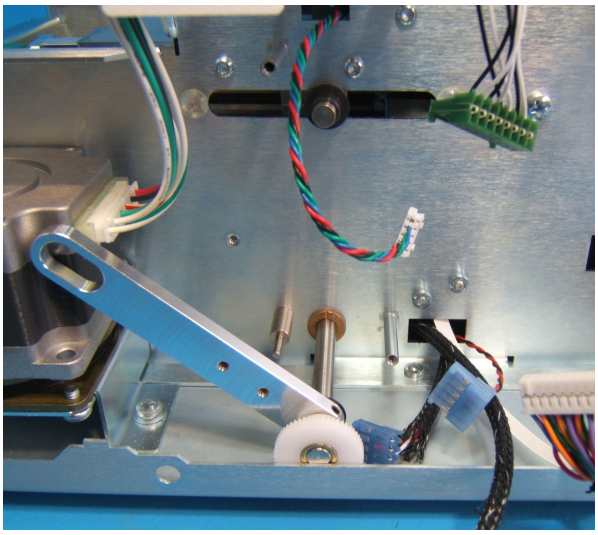
16.2

Remove input door motor (bottom screw can be accessed through hole in base plate). Remove tiny retaining ring and slide off black pulley. Remove top retaining ring from right link (keep track of washers).



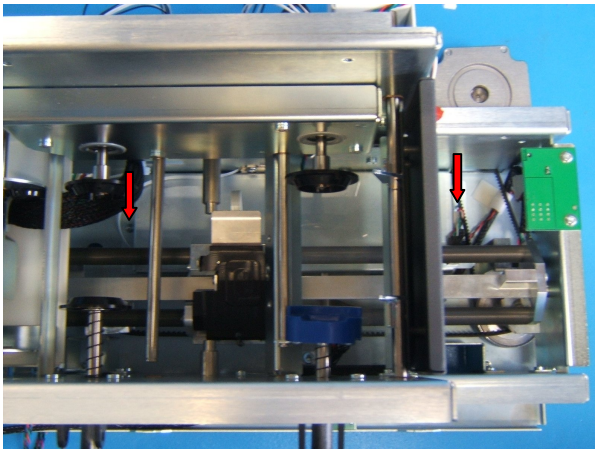
16.3

Slide link and shaft out until it stops against edge of base plate.



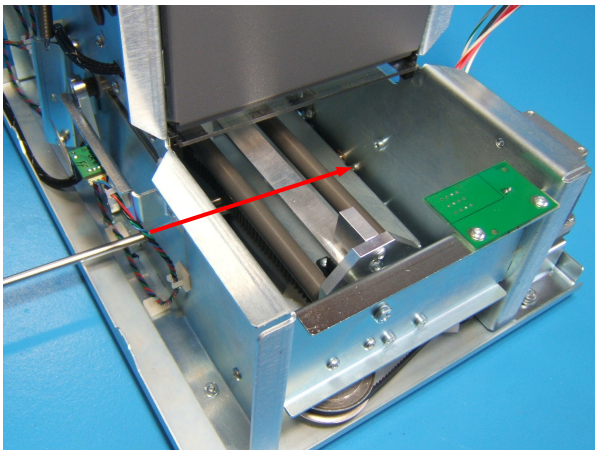
16.4

Remove both screws securing wire plenum bracket.



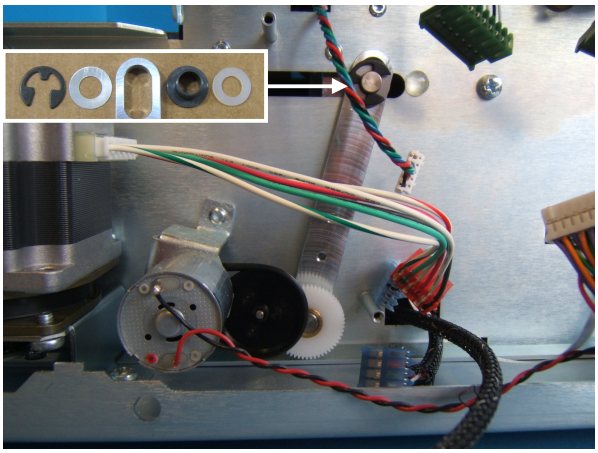
16.5

Remove bearing that shaft was in from left side plate. Slide long screwdriver into hole and lift wire plenum bracket slightly to access screw securing idler post. Tighten or replace screw (with Loctite 242) while gripping idler post with pliers. Be sure post is solid on side plate. Replace 2 screws in wire plenum bracket. Press bearing back into left side plate.



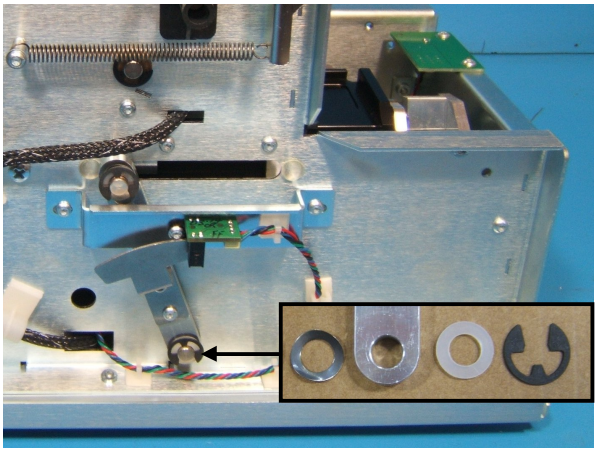
16.6

Arrange link, bushing and washers in order shown in insert picture and secure with retaining ring. Slide pulley onto post and secure with tiny retaining ring. Loop o-ring around both pulleys and secure input door motor.



16.7

Arrange link and washers in order shown in insert picture and secure with retaining ring. Tighten both set screws.



17 ▪ Troubleshooting

17.1

X